

## REMARKS

Reconsideration and withdrawal of the rejections set forth in the above-mentioned Office Action in view of the foregoing amendments and following remarks are respectfully requested.

Claims 1-13, 15 and 18-25 are pending in the application, with Claims 1, 13 and 24 being independent. Claim 13 has been amended and Claims 24 and 25 are newly added. Support for the amendment to Claim 13 and new Claims 24 and 25 may be found, for example, at page 18, line 2 through page 21, line 10 of the specification. Applicants submit that no new matter has been added.

Claims 13, 15, 18 and 23 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,511,736 (Asano et al.) in view of any one of JP 10-129112, WO 01/25534 (Darsillo et al.) and EP 0 732 219 (Hirose et al.). Claims 13 and 19-21 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Asano et al. in view of any of JP 10-129112, Darsillo et al. and Hirose et al., and further in view of U.S. Patent 6,200,670 (Hosoi et al.) or U.S. Patent No. 5,759,673 (Ikezawa et al.). Claims 13 and 22 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Asano et al. in view of any of JP 10-129112, Darsillo et al. and Hirose et al. and further in view of U.S. Patent No. 5,985,425 (Tomizawa et al.). These rejections are respectfully traversed.

Applicants' invention as recited in independent Claim 13, as amended, is directed to a method of manufacturing a recording medium including a base material and an ink-receiving layer provided on the base material and containing a particulate material. The method includes the steps of producing a coating layer by applying a coating solution containing the

particulate material containing particles of crystalline aluminum oxide having a plate-like profile to the base material followed by drying, applying water to the coating layer to cause swelling and pressing the surface of the swelled coating layer against a heated mirror-surface drum to produce the ink-receiving layer so as to have a specular gloss of the surface thereof not less than 20% as measured at 20°. The particulate material contains particulate aluminum oxide at not less than 70 wt %. The ink-receiving layer contains a binder, and the mixing ratio of the particulate aluminum oxide to the binder is within a range of between 5:1 and 25:1 by weight. The base material includes a fibrous substrate having a surface layer thereon, and the fibrous substrate has a Stöckigt sizing degree of 100 seconds or more. The average particle diameter of the aluminum oxide particles is not more than 0.3  $\mu\text{m}$  and not less than 80% of the total aluminium oxide particles have a particle diameter of not more than 1.0  $\mu\text{m}$ .

Applicants' invention as recited in Claim 24 is directed to a method of manufacturing an ink jet recording medium including a base material and an ink-receiving layer provided on the base material and containing a particulate material. The method includes applying a coating solution containing the particulate material containing particles of crystalline aluminum oxide having a plate-like profile to the base material followed by drying to form a coating layer. The average particle diameter of the aluminum oxide particles is not more than 0.3  $\mu\text{m}$  and not less than 80% of the total aluminum oxide particles have a particle diameter of not more than 1.0  $\mu\text{m}$ .

Thus, with the present invention, a recording material can achieve both high ink absorptivity and high glossiness. These properties can be achieved by using aluminum oxide particles having the claimed size and shape. Specifically, as described at page 18, line 2 through

page 21, line 10 of the specification, aluminum oxide particles having a plate-like profile are less apt to be oriented in forming an ink-receiving layer. The lack of orientation can result in interspaces or pores between the particles. As a result, even small particles, which are advantageous for showing glossiness, can achieve good ink absorptivity.

Asano et al. is directed to a recording medium having excellent gloss and high color density. The recording medium includes a multi-layered ink fixing layer, formed on a substrate material and composed of an outer-most ink fixing layer and one or more intermediate ink fixing layers. Each includes a binder and a pigment. The pigment may be silica, aluminosilicate, or alumina and zeolite, and the pigment is in the form of fine particles having a size of 1 $\mu$ m or less. Asano et al., however, is silent as to the shape of the pigment particles. Accordingly, Applicants submit that Asano et al. does not teach or suggest, at least, particles of crystalline aluminum oxide having a plate-like profile, as recited in Claims 13 and 24.

JP 10-129112, Darsillo et al. and Hirose et al. were cited for disclosing use of crystalline aluminum oxide in an ink-receiving layer. None of these references, however, is understood to teach or suggest, at least, particles of crystalline aluminum oxide having a plate-like profile, as recited in Claims 13 and 24. Thus, Applicants submit that references do not remedy the above-noted deficiencies of Asano et al.

Hosoi et al. and Ikezawa et al. were cited for their teachings regarding the use of barium sulfate. Tomizawa et al. was cited for its teaching of an alumina-containing layer on the side opposite the recording layer. These references, however, are not understood to remedy the above-noted deficiencies of Asano et al.

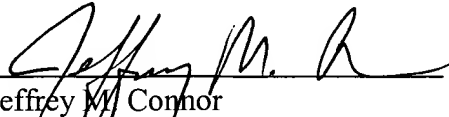
Accordingly, Applicants submit that none of the cited documents, whether taken alone or in combination (assuming a combination is proper) teach or suggest important features of Applicants' presently claimed invention. Applicants respectfully request reconsideration and withdrawal of the § 103 rejections.

For the foregoing reasons, Applicants submit that the present invention is patentably defined by independent Claims 1, 13 and 24. Dependent Claims 15, 18-23 and 25 are also allowable, in their own right, for defining features of the present invention in addition to those recited in the independent claims. Individual consideration of the dependent claims is requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal rejection set forth in the above-noted Office Action, and an early Notice of Allowability are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
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